

RemarksStatus of Claims

The Examiner's Office action mailed February 23, 2009 which rejected pending claims 1-9, 11, 14-16, and 21-24 has been reviewed. Claims 1-4, 6, 8-9, 21, and 23-24 have been amended. Claims 14-16 are currently been cancelled, and claims 10, 12-13, and 17-20 were previously cancelled. Accordingly, claims 1-9, 11, and 21-24 are now pending in the application, of which claims 1, 9, 21, and 23 are independent claims. In view of these amendments and the following remarks, Applicants respectfully submit that the application is in condition for allowance.

Claim Rejection Under 35 U.S.C. § 101

Claims 14-16 were rejected under 35 U.S.C. § 101 as not being directed to statutory subject matter. In response to this rejection, claims 14-16 are herein cancelled.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-11, 14-16, and 21-23 have been rejected under 35 U.S.C. § 102(e) as being anticipated by the newly cited reference U.S. Patent Application Publication No. 2002/0188513 to Gil et al. ("Gil"). Applicants traverse this rejection, withdrawal of which is respectfully requested.

Applicants note that in responding to the outstanding Office action, they are hindered by the format of the 35 U.S.C. § 102(e) rejection, which catalogs the claim limitations of each claim, and then cites to passages from the Gil reference (generally citing to paragraphs 51-58 and 85-97) as to the entire claim. In other words, the Office action does not cite passages within the Gil patent that teach given paragraphs or elements of Applicants' claims. This format is particularly problematic when considering the rejection of the independent claims, which include numerous claim limitations. Various potentially distinctive limitations ought to be considered separately in making out a rejection under 35 U.S.C. § 102(e). See § MPEP 2131 Anticipation - Application of 35 U.S.C. 102(a), (b), and (e), to Anticipate a Claim, the Reference must Teach Every Element of the Claim".

Given the amendments herein to each of the independent claims, Applicants respectfully submit that neither the reference Gil, nor other art of record, teach each and every element of the claims either expressly or inherently, for reasons argued below.

Prior to detailed comparison of disclosures from the reference Gil to the present claimed invention, it is useful to consider an overview of Gil's teachings. This reference teaches method and apparatus for reporting in a supply chain involving an enterprise and at least one partner. Gil's techniques for reporting in a supply chain involve an enterprise component and at least one partner component, wherein the enterprise component is operable to generate real-time data relevant to one or more transaction of the supply chain. Para [0013]. Gil's system includes a series of "domains" each corresponding to a particular entity in the supply chain, such as the enterprise, one or more partner of the enterprise, and one or more customer of the enterprise. Para. [0043]. Gil addresses the need of an enterprise to execute transactions across supply chains, in a manner that is compatible with (i.e. works on top of) existing systems of these domains, i.e. the enterprise, its partners, and customers. Cf. para. [0050], discussing existing enterprise systems and partner systems (ERP, MRP, SCM, CRM, WMS, or EAI systems). Gil's techniques are designed to access data retrieved from a partner system for a transaction. Gil's system includes a "partner coordinator" component that is integrated with the existing partner system, and that retrieves and converts the partner data in real time into a format usable by the "network system" of the enterprise. This architecture enables Gil's network system to generate real-time reports for the enterprise. Para. [0007].

Applicants' method and system for electronic supply chain management is directed to entirely different goals than the retrieval by an enterprise of information from partner systems in real time. Applicants' supply chain management system addresses the problems that may occur with entities in a supply chain that are relatively far from data, and problems that occur when data is stored in multiple places. A first problem is inconsistencies in data when multiple parties have write access or when a master database is synchronized from smaller databases. A second problem is the need to obtain efficient access to data stored large distances from users of the data. A third problem is problems that may arise in a distributed system when one or more server of the system becomes unavailable. See pages 2-3 of the Application.

Applicants' solution to these problems, as defined in the amended claims, is to store a common set of data distributed among each of a plurality of local hubs in a distributed system for

supply chain management. This addresses the problems noted above of efficient access to information, and of ensuring continuing access when one or more server becomes available. Applicants' supply chain information is comprised of a plurality of data portions, and a set of regional authorities control access to the supply chain information by determining which of the local hubs is authorized to write to one or more of the data portions. This regional control scheme addresses the problems mentioned above that arise when multiple parties have write access to information, or when a master database is synchronized from smaller databases.

Claim 1 is patentable over Gil under 35 U.S.C. § 102(e). The following is claim 1 with underlined portions that are not disclosed, taught, or suggested by the cited reference.

1. A system for electronic supply chain management and collaborative planning, including:
 - a plurality of local hubs, remotely coupled to each other;
 - a set of supply chain information stored in a database coupled to each of said local hubs, wherein said set of supply chain information comprises a common set of data distributed among each of the local hubs, said set of supply chain information comprising a plurality of data portions respectively owned by one or more business entity relatively proximate to each said local hub;
 - a set of regional authorities controlling access to said supply chain information, wherein each given regional authority of said set of regional authorities has authority over said at least one of said local hubs, said given regional authority controlling which of said at least one of said local hubs may write to one or more of said data portion controlled by said given regional authority;
 - a first server coupled to at least one of said local hubs, wherein said first server is dedicated to process a first message type that requires access to and processing of said supply chain information stored in said database ;
 - a second server coupled to said at least one of said local hubs, wherein said second server is dedicated to process a second message type that does not require access to and processing of said supply chain information stored in said database ; and
 - a computer program coupled to said at least one of said local hubs to receive a message generated from a client device identifying a transaction, to determine whether said message requires access to and processing of said supply chain information stored in said database based on said transaction, to send said message to said first server when said message is determined to be said first message type, and to send said message to said second server when said message is determined to be said second message type.

Claim 1 is herein amended to refer to "local" hubs, and to specify that the set of supply chain information comprises a common set of data distributed among each of the local hubs.

Further, the set of supply chain information is recited to comprise a plurality of data portions respectively owned by one or more business entity relatively proximate to each said local hub.

Further, claim 1 is amended in its description of the role of the regional authorities. Each given regional authority has authority over said at least one of said local hubs. The given regional authority controls which of the local hubs may write to one or more of said data portion controlled by the given regional authority.

As thus amended, claim 1 further defines aspects of applicants' multi-hub system for distributed control and efficient processing of supply chain information, providing various features that are not taught expressly or impliedly by Gil.

In the absence of a detailed comparison of applicants' claims with specific teachings of Gil, applicants comment below on paragraphs 51-58 of Gil (and further below, paragraphs 85-89 of Gil). While not intended as a comprehensive description of potentially pertinent teachings in Gil's passages cited in the Office action, the following comments provide a background to applicants' arguments that these passages do not teach various elements of claim 1 as amended.

Paragraphs 51-58 of Gil disclose a network architecture that integrates an enterprise with a number of partners, the network system including subsystems. WAN or LAN network systems include existing enterprise and partner infrastructure. The infrastructure may include for example Enterprise Java Beans servers, e.g. with a Java 2 platform and web infrastructure. Redundant processors may reside at the enterprise domain and the network domain. Governance and policy mechanisms (e.g. "dynamic routing policies and events") can govern network system interactions with partner domains.

Gil paragraphs [0051]-[0058] also disclose that non-invasive components of the network domain can sit on top of legacy infrastructure at the enterprise domain and partner domains. The network supports connections to databases, spreadsheets and other applications of the existing systems. The network domain can provide a standards-based interchange to support a variety of data transmission formats and translation services, to share data between systems.

Paragraphs 51-58 of Gil do not teach a geographically dispersed architecture of the network system with a plurality of local hubs, nor does it teach common set of data distributed among each of the local hubs or similar distributed system. Although Gil does teach interaction of the network system with business partner domains to access data "owned" by partners in real time, this locally "owned" data is not disclosed as part of a common set of data distributed

among a plurality of local hubs. There is no teaching of data at local hubs of the network domain being comprised of a plurality of data portions respectively owned by one or more business entity relatively proximate to each said local hub.

Furthermore, paragraphs 51-58 of Gil do not teach the elements of claim 1 describing the role of regional authorities, with a plurality of regional authorities controlling access to data at local hubs. Although Gil does teach routing policies and governance mechanisms that can enforce business policy rules, at para. [0055], Gil does not teach the role of regional authorities in a distributed data structure of the network domain. For example, in para. [0055] the “routing policies” of Gil appear to govern transfer of data to the network domain from partner domains. Besides the lack of teaching of a “regional authority” role in the sense of claim 1, Gil does not teach that any entity that might be considered a “regional authority” controls data portions of a common set of data. In particular there is no teaching of regional control of which local hub may write to one or more data portion of a common set of data.

Paragraphs 85-97 of Gil disclose business processes for communications among various domains of a supply chain network. A disclosed embodiment uses “partner coordinator components” (PCCs) at a partner domain, customer domain, or network domain to facilitate real-time information transfer between domains. The PCCs may operate via data “push” or by providing the network domain with access to data in another domain.

The discussion of Figure 6 describes two “scenarios”, the first involving B2B messaging, and the second involving generation of a scheduled task for handling by a user. In describing the first scenario, Gil discloses databases (business data repositories 192 and policy data repositories 194) within the network domain. Paras. [0089]-[0090] disclose a business process module 188 that operates on incoming messages from a partner domain or customer domain in the context of a transaction. The business process module 188 may read business documents from the business data repositories 192,. The business process module may update such documents in response to incoming messages (“Business process 188 can then update business data in the business document 190, and generate audit and process metrics”).

Gil also discloses at para. [0097] that in the second scenario (generation of a scheduled task for handling by a user) the business process module can update the business data repositories 192 upon completion of the generated task.

The disclosure at paragraphs 85-97 and Figure 6 of Gil does bear similarities to the “first server”, “second server” and “computer program” features of claim 1. However, Gil does not disclose first and second servers (heavyweight and lightweight servers) with the respective functions described in claim 1, nor does Gil describe a computer program for parsing messages based upon the requirement of database access. For example, both the first and second scenarios discussed at paras. [0085]-[0097] lead to access to the business data repositories at the network domain.

Paragraphs 85-97 of Gil do not teach a geographically dispersed architecture of the network system with a plurality of local hubs, nor do they teach common set of data distributed among each of the local hubs or similar distributed system. This passage does not disclose local hubs (or local nodes of the network domain 14) containing a common set of data that comprised of a plurality of data portions respectively owned by one or more business entity relatively proximate to each local hub.

Paragraphs 85-97 of Gil do not teach the elements of claim 1 describing the role of regional authorities, with a plurality of regional authorities controlling access to data at local hubs. This passage from Gil does not teach the role of regional authorities in a distributed data structure of the network domain, nor does it teach any entity that might be considered a “regional authority” and that controls data portions of a common set of data. In particular there is no teaching of regional control of which local hub may write to one or more data portion of a common set of data.

In summary, the cited passages from Gil, considered also in light of other passages from Gil as discussed above, fail to disclose expressly or by implication various limitations of claim 1 as amended. This is not surprising given fundamentally different goals of Gil versus the goals of applicants’ system for electronic supply chain management and collaborative planning.

Claim 9 is patentable over Gil under 35 U.S.C. § 102(e). The following is claim 9 with underlined portions that are not disclosed, taught, or suggested by the cited reference.

9. A method for processing transactions at a hub for electronic supply chain management, said method including steps of:
 - receiving messages from at least one client device at a software module of a local hub, said software module executable by a processing device, said local hub coupled to a database of information regarding supply chain management;
 - parsing each of said messages and determining whether each message requires access to and processing of information stored in said database;

separating each of said messages into a first type of message or a second type of message, wherein said first type of message requires access to and processing of information stored in said database, and said second type of message does not require access to and processing of information stored in said database;

sending said first type of message to a heavyweight server, wherein said heavyweight server accesses information stored in said database, processes said first type of message and said information stored in said database, and transmits data resulting from the processing of said first type of message and said information stored in said database;

sending said second type of message to a lightweight server, wherein said second type of message is transmitted from said lightweight server without accessing and processing information stored in said database;

parsing said database into data portions for which said local hub has write access authorization, and data portions for which said local hub does not have write access authorization; and

for each said first type of message, determining whether said first type of message requires writing to said database, and permitting writing only to said data portions of said database for which said local hub has write access authorization.

Claim 9 pertains to a method for processing transactions at a hub for electronic supply chain management, and is herein amended to add the steps of “parsing said database into data portions for which said local hub has write access authorization, and data portions for which said local hub does not have write access authorization” and “for each said first type of message, determining whether said first type of message requires writing to said database, and permitting writing only to said data portions of said database for which said local hub has write access authorization”.

The comments above in the discussion of claim 1, both as to the teachings of Gil, and the distinguishing features of claim 1, are incorporated by reference as to method claim 9.

Thus, the method of claim 9 prior to this amendment distinguished incoming messages from those that require access to information stored in a database at a local hub (sending such messages to a heavyweight server) and messages that do not require access to information stored in a database at the local hub (sending such messages to a lightweight server). As discussed above relative to claim 1 in the discussion of paragraphs 85-97 of Gil, Gil contains somewhat similar functions but does not disclose this same message sorting methodology or server types.

Furthermore, Gil does not teach or suggest the additional steps added to claim 9, as discussed above relative to claim 1. Gil does not teach the parsing a database into data portions

having (or not having) local hub write authorization as claimed, nor does Gil the determination of whether messages require writing to the database, and selective granting of permission to update portions of the database, as described in claim 9.

Claim 21 is patentable over Gil under 35 U.S.C. § 102(e). The following is claim 21 with underlined portions that are not disclosed, taught, or suggested by the cited reference.

21. A system for electronic supply chain management and collaborative planning, including:
a plurality of local hubs, remotely coupled to each other, each of said plurality of local hubs including:
a database to store supply chain information, wherein said supply chain information comprises a common set of data distributed among each of the plurality of local hubs, said set of supply chain information comprising a plurality of data portions respectively owned by business entities relatively proximate to each said local hub;
a heavyweight server to process a first type of message that requires access to and processing of said supply chain information stored in said database;
and
a lightweight server to process a second type of message that does not require access to and processing of said supply chain information stored in said database;
a first regional authority corresponding to one of said plurality of local hubs for controlling access to said supply chain information in databases associated with a first group of said plurality of local hubs, wherein said first regional authority has authority over which of said first group of said plurality of local hubs may write to one or more of said data portions controlled by said first regional authority;
a second regional authority corresponding to another one of said plurality of local hubs for controlling access to said supply chain information in databases associated with a second group of said plurality of local hubs, wherein said second regional authority has authority over which of said second group of said plurality of local hubs may write to one or more of said data portions controlled by said second regional authority; and
a communication network to communicate between said first regional authority and said second regional authority, wherein said first regional authority requests instructions for obtaining one or more of said data portions under control of said second regional authority.

Claim 21 is amended to recite that the database to store supply chain information comprises a common set of data distributed among each of the plurality of local hubs, said set of supply chain information comprising a plurality of data portions respectively owned by business entities relatively proximate to each said local hub. Claim 21 further is amended to provide that

the first regional authority has authority over which of the first group of said plurality of local hubs may write to one or more of said data portions controlled by said first regional authority. A corresponding limitation is added to the claim element for the second regional authority.

These claim amendments to the claim 21 system for electronic supply chain management and collaborative planning are generally similar to the amendments to claim 1. The comments on the teachings of Gil, and distinguishing arguments as to claim 1 are herein incorporated by reference as to corresponding limitations of claim 21. The “first regional authority” and “second regional authority” elements of claim 1 express in different terms than claim 1 the respective groups of local hubs that are controlled by each of these regional authorities, but the same essential arguments from the discussion of claim 1 carry over to claim 21.

Claim 21 also includes the concluding limitation of a communication network to communicate between said first regional authority and said second regional authority, wherein said first regional authority requests instructions for obtaining one or more of said data portions under control of said second regional authority. Just as Gil does not disclose entities in the network domain that can be considered “regional authorities” with the functions as claimed, nor does Gil disclose a function of the network domain wherein one regional authority requests instructions for obtaining data portions under the control of another regional authority. This is another limitation distinguishing claim 21 from Gil.

Claim 23 is patentable over Gil under 35 U.S.C. § 102(e). The following is claim 23 with underlined portions that are not disclosed, taught, or suggested by the cited reference.

23. (Currently Amended) A system for electronic supply chain management and collaborative planning, including:
a plurality of local hubs, remotely coupled to each other via a communication network and each including:
a database to store a set of information, wherein said set of information comprises a common set of data distributed among each of the local hubs, and further comprises a plurality of data portions for which respective ones of said local hubs have write authorization access;
a first server to process a first message type that requires access to and processing of said information stored in said database ;
a second server to process a second message type that does not require access to and processing of said information stored in said database ;and
a computer program executable by at least one of said first and second servers in response to a message from a client device identifying a transaction, to determine whether said message is said first message type or said second message type based on said transaction, to send said message to said first server when said

message is determined to be said first message type, and to send said message to said second server when said message is determined to be said second message type; and said computer program further to determine whether said message requires writing to said database and to determine a particular one of said local hubs that would write to said database, said computer program permitting writing only to the data portions of said database for which the particular one of said local hubs has write authorization access.

Claim 24 is herein amended to recite, as to a set of information stored in the database, that this information “comprises a common set of data distributed among each of the local hubs, and further comprises a plurality of data portions for which respective ones of said local hubs have write authorization access”. Claim 24 is also amended similarly to claim 9 in its “computer program” element to add the limitation “further to determine whether said message requires writing to said database and to determine a particular one of said local hubs that would write to said database, said computer program permitting writing only to the data portions of said database for which the particular one of said local hubs has write authorization access.”

The comments above in the discussion of claim 1, both as to the teachings of Gil, and the distinguishing features of claim 1, are incorporated by reference as to claim 23. Furthermore in considering the additional limitation in the “computer program” element of claim 23, the comments above for claim 9 are incorporated by reference. For these above recited reasons, the claim elements from claim 23 underlined above are not disclosed, expressly or by implication, by the reference Gil.

No Admission

Applicant’s decision not to argue the dependent claims separately is not an admission that the subject matter of those claims is disclosed or suggested by the applied art.

CONCLUSION

For the foregoing reasons, Applicant respectfully submits that all pending claims are patentable over the art of record, and the cancellation of claims 14-16 eliminates the rejection of those claims under 35 U.S.C. § 101. To discuss any matter pertaining to the present application, the Examiner is invited to call the practitioner of record, Steven Swernofsky, at (650) 947-0700.

Having made an effort to bring the application in condition for allowance, a timely notice to this effect is earnestly solicited.

Respectfully submitted,

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